

## Authenticating Media Signals by Adjusting Frequency Characteristics to Reference Values

### *Abstract of the Disclosure*

A method of authenticating a media signal and related software, systems and applications. The method transforms at least a portion of the media signal into a set of frequency coefficients in a frequency domain. For example, it applies a Fast Fourier Transform (FFT) or other frequency transform to blocks of a media signal, such as an image, audio or video signal. It adjusts a relationship between selected frequency coefficients to a reference value. This adjustment is selected so that an alteration to be detected, such as a re-sampling operation or digital to analog- analog to digital conversion, alters the relationship. To detect the alteration, a detector computes the relationship in a potentially corrupted version of the signal. It then compares the result with a threshold value to detect whether the alteration has occurred.

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